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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/502,899	02/11/2000	Robert Bennett Stout JR.	ADDS:017/KRE	5856

7590 02/02/2004

Hugh R.Kress
Winstead Sechrest & Minick P.C.
910 Travis,
Suite 2400
Houston, TX 77002

EXAMINER	
SHAPIRO, JEFFERY A	

ART UNIT	PAPER NUMBER
3653	

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/502,899	STOUT ET AL.	
	Examiner	Art Unit	
	Jeffrey A. Shapiro	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-21 and 23-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-21, and 23-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 21, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by McSpadden et al. McSpadden et al discloses the fuel additive dispensing system as follows.

As described in Claims 1 and 21;

1. a housing adapted to be affixed to a fuel dispenser having a fuel dispensing hose (note that fuel dispenser shown in figure 1 inherently has a housing);
2. a hydraulic module (see figure 2), disposed at least partially within said housing having a fluid input (73) adapted to be coupled to at least one source of fuel additive (47) and a fluid output flow adapted to be coupled to said fuel dispensing hose (41) to introduce said additive into a stream of fuel delivered through said fuel dispensing hose;
3. control circuitry (71), coupled to said hydraulic module, for generating electrical control signals applied to said hydraulic module to

cause a controlled amount of said additive to be released from said at least one source to flow through said fluid input and fluid output and into said fuel dispensing hose.

4a. *at least one sensor, coupled to said control circuitry and to said hydraulic module, for acquiring data reflecting actual operation of said hydraulic module* ***during a plurality of successive fueling transactions****; (Note that, at the very least, it is inherent that sensors such as flow sensors would have to be used by a system such as that used in McSpadden et al in order for it to work.) (See also Claim 11, "wherein the statistical development step includes assigning successive pulses of actual and first and second flow rate signals..."—note that a transaction can be construed to be equivalent to a pulse.)*

4b. *processing circuitry (see figure 6), coupled to said at least one sensor, for comparing said data reflecting actual operation of said hydraulic module* ***during said plurality of successive fueling transactions*** *with data corresponding to target operation of said hydraulic module;*

4c. said controlled amount of additive is determined based upon *said comparison of data reflecting actual operation of* said hydraulic module ***during said plurality of successive fueling transactions*** *with said data corresponding to target operation of said hydraulic module (see figure 6);*

Claim Rejections - 35 USC § 103

3.. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 4, 6, 7, 10-12, 17-19, 22, 24, 26, 27, 30-32, and 37-39, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinsmeyer US 5,163,586. Zinsmeyer '586 discloses the fuel additive dispensing system as follows.

As described in Claims 1 and 21;

1. a housing adapted to be affixed to a fuel dispenser having a fuel dispensing hose (note that fuel dispenser (1) has a housing);

2. a hydraulic module, disposed at least partially within said housing having a fluid input adapted to be coupled to at least one source of fuel (25) additive and a fluid output flow (note fuel tanks 28-30) adapted to be coupled to said fuel dispensing hose (20-22) to introduce said additive into a stream of fuel delivered through said fuel dispensing hose;

3. control circuitry (2 and 4), coupled to said hydraulic module, for generating electrical control signals applied to said hydraulic module to cause a controlled amount of said additive to be released from said at least one source to flow through said fluid input and fluid output and into said fuel dispensing hose.

4a. *at least one sensor, coupled to said control circuitry and to said hydraulic module, for acquiring data reflecting actual operation of said*

hydraulic module ***during a plurality of successive fueling transactions;*** (Note col. 3, lines 12-28, for example, which states in part "a" that the controller "monitors the existing fuel dispenser system to detect which fuel has been selected by the customer and the fuel flow rate in real time." This action inherently requires a sensor to sense the fuel flow, such as a flow meter. As this flow meter is connected to the controller (4), which receives information in real time during the fuel dispensing operation, it is construed that data is acquired reflecting actual operation of said hydraulic module over time—the time it takes to perform the dispensing operation. See col. 5, lines 32-36.)

4b. *processing circuitry, coupled to said at least one sensor, for comparing said data reflecting actual operation of said hydraulic module* ***during said plurality of successive fueling transactions*** *with data corresponding to target operation of said hydraulic module;* (Again, note that the controller (4) is construed as processing circuitry, coupled to one sensor (a flow meter), and compares data over time with data corresponding to target operation of the system—an additive mix ratio as well as information as to which fuel is selected, the rate of fuel flow, or a preset amount of fuel either by volume or cash designation. See col. 5, lines 36-49.)

4c. said controlled amount of additive is determined based upon *said comparison of data reflecting actual operation of* said hydraulic module

during said plurality of successive fueling transactions *with said data corresponding to target operation of said hydraulic module;* (Note that the amounts of additive can be changed easily by changing the mixing ratios in the control computer based on prior reported performance of a particular mixture of additives and fuels, for example. See also col. 5, lines 32-49 as well as Claim 1. Note also, Claim 5, col. 8, lines 40-43, describing said fuel dispenser computer displaying a total measure of volume and cost of delivered fuel, which may be construed as data reflecting actual operation of said hydraulic module.) *(Note that fuel dispensers necessarily control output by sensing pulses of flow, and that the pulses can be construed to be successive fueling transactions or pulses within a particular fueling transaction. Williams, for example, generates statistical performance charts for additive controllers—see abstract, lines 5-9. Rogers et al statistically analyzes operational performance of a fuel dispenser using measurements collected from usage to usage and over time, from a micro standpoint (operation of a particular dispenser) to a global standpoint (a system of dispensers)—see abstract and Claim 1. McSpadden et al statistically determines an ideal volume of low to high octane fuels. See abstract, figure 6, col. 2, lines 58-66, and col. 3, lines 7-25, col. 10, lines 3-15 and Claim 11.)*

4d. *each fueling transaction beginning with activation of a fuel hook by a customer and ending with deactivation of said fuel hook by said*

customer; (See McSpadden, figure 11, which describes and illustrates a transaction sequence. Note also that irrespective of the time period over which the analysis is performed, the system of McSpadden continues to work as Applicant's system.)

As described in Claims 4 and 24;

6. said hydraulic module further comprises a flow meter (23 and 26) coupled to said control circuitry for monitoring the flow of additive through said hydraulic module;

As described in Claims 6 and 26;

7. said controlled amount of additive is released in at least one increment into said stream of fuel;

As described in Claims 7 and 27;

8. said controlled amount of additive is released each time a predetermined amount of fuel is delivered through said fuel dispensing hose;

As described in Claims 10 and 30;

9. said at least one source of fuel additive is external to said housing;

As described in Claims 11 and 31;

10. said controlled amount of said additive is an amount proportional to a total amount of fuel in said stream of fuel;

As described in Claims 12 and 32;

11. said controlled amount of said additive is an amount specified by a user of said fuel dispenser (note that the operator could be construed as a user of said fuel dispenser);

As described in Claims 17 and 37;

12. a user interface (3) coupled to said control circuitry, wherein said control circuitry is responsive to a selection signal generated by said control circuitry to initiate dispensation of said fuel additive (note that said fuel additive is automatically dispensed with the fuel as the fuel is requested);

As described in Claims 18 and 38;

13. said user interface is responsive to user interaction to generate said selection signal;

As described in Claims 19 and 39;

14. said user interface is responsive to said user interaction occurring prior to said stream of fuel being delivered through said fuel dispensing hose to generate said selection signal;

As described in Claims 41 and 46;

15. said control circuitry is adapted to be coupled to a retail point-of-sale system (see abstract) including a point-of-sale server for controlling a fuel dispensing transaction;

As described in Claim 42 and 47;

16. fuel and said fuel additive are dispensed in a single integrated transaction;

As described in Claims 43 and 48;

17. a predetermined amount of said additive is dispensed;

As described in Claims 44 and 49;

18. the amount of additive dispensed is proportional to the amount of said fuel dispensed;

As described in Claims 45 and 50;

19. said control circuitry is responsive to at least one signal from said retail point-of-sale system to disable said fuel additive dispensing system (see Claim 5);

5. Claims 3, 5, 8, 9, 16, 20, 23, 25, 28, 29 and 40, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinsmeyer '586 in view of Leatherman et al '629. Zinsmeyer '586 discloses the fuel additive dispensing system as described above. Zinsmeyer '586 further discloses the following.

As described in Claims 3 and 23;

1. said fluid input comprises an input flow control manifold and said fluid output comprises an output flow control manifold (note that it is inherent that said fuel dispenser (1) will have an input and output flow control manifold, as is widely known in the art);

As described in Claims 5 and 25;

2. said hydraulic module operates to dispense said additive with an accuracy of at least approximately 0.75%. (Note that this accuracy is well known to those ordinarily skilled in modern digital control art and well within the means of performance of typical computer control dispensing devices. See also Column 2, lines 18-24, note in particular that the device of Zinsmeyer has accuracy of 0.4%.)

As described in Claims 20 and 40;

3. said user interface is responsive to said user interaction occurring while said stream of fuel is being delivered through said fuel dispensing hose to generate said selection signal (note that although said user input does not occur during delivery of said stream of fuel, this is a functional equivalent of responding to said user interaction before said stream of fuel is delivered, as is described in Claim 19)

Zinsmeyer '586 does not expressly disclose the following.

As described in Claims 8 and 28;

4. a graphic display viewable by a user of said fuel dispenser;

As described in Claims 9 and 29;

5. at least one user-actuable control for activating said dispensing system to dispense said fuel additive into said stream of fuel;

As described in Claims 16 and 36;

6. said graphic display is responsive to said control circuitry to display a plurality of separate images thereon;

Leatherman et al '629 discloses a graphics based, internet based fuel dispenser having the following.

As described in Claims 8 and 28;

7. a graphic display viewable by a user of said fuel dispenser (38);

As described in Claims 9 and 29;

8. at least one user-actuable control (40 and 32) for activating said dispensing system to dispense said fuel additive into said stream of fuel;

As described in Claims 16 and 36;

9. said graphic display (38) is responsive to said control circuitry to display a plurality of separate images thereon;

Both Zinsmeyer '586 and Leatherman et al '629 are analogous art as they are both fuel dispensers having computer based control systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have integrated the computer based, internet based, graphics interface system of Leatherman et al '629 with the fuel dispenser of Zinsmeyer '586.

The suggestion/motivation for doing so would have been to improve customer and user interface with the system. See abstract of Leatherman et al '629 and note Zinsmeyer '586 is a fuel dispenser inherently used at a point of sale (a gas station) with routine access to customers.

Therefore, it would have been obvious to combine Zinsmeyer '586 with Leatherman et al '629 to obtain the invention as specified in Claims 3, 5, 8, 9, 16, 20, 23, 25, 28, 29 and 40.

Claims 13-15 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinsmeyer '586 in view of Leatherman et al '629 and further in view of Comer et al.

Zinsmeyer '586 and Leatherman et al '629 disclose the fuel dispenser as described above. Zinsmeyer '586 and Leatherman et al '629 do not expressly disclose the following.

As described in Claims 13 and 33;

10. a proximity detector, coupled to said control circuitry, for detecting the presence of a person in the vicinity of said system;

As described in Claims 14 and 34;

11. said proximity detector applies a detection signal to said control circuitry upon detection of a person in the vicinity of said system;

As described in Claims 15 and 35;

12. said control circuitry is responsive to said detection signal to display at least one predetermined image on said graphic display;

Comer et al discloses a fuel dispenser having the following.

As described in Claims 13 and 33;

13. a proximity detector (75), coupled to said control circuitry, for detecting the presence of a person in the vicinity of said system;

As described in Claims 14 and 34;

14. said proximity detector (75) applies a detection signal to said control circuitry upon detection of a person in the vicinity of said system;

Regarding Claims 15 and 35, note that it would be expedient for one ordinarily skilled in the art to cause a predetermined image as disclosed in Leatherman et al '629 to be displayed based upon the detection of a customer at the fuel dispenser.

Zinsmeyer '586, Leatherman et al '629, and Comer et al are all analogous art as they all pertain to fuel dispensers.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have used a proximity detector such as that used by Comer et al in the device of Zinsmeyer '586.

The suggestion/motivation for doing so would have been to detect the presence of a customer. See abstract of Comer et al.

Therefore, it would have been obvious to combine Comer et al with Zinsmeyer '586 and Leatherman et al '629 to obtain the invention as specified in Claims 3, 5, 8, 9, 16, 20, 23, 25, 28, 29 and 40.

Response to Arguments

6. Applicant's arguments filed 9/24/02 have been fully considered but they are not persuasive. Applicant's amendments to the independent claims do not appear to overcome the prior art, as discussed above. The control system of Zinsmeyer is construed as reading on Applicant's independent claims because it is well known in the art as well as inherent that control systems use sensors to acquire data to feedback to a central controller which adjusts various parts of the system to maintain a particular target output variable. This is necessarily done over time. Such a time period is

arbitrary, as required by the situation. Even if one considers open loop versus closed loop control systems, they are, at the very least, obvious alternatives to each other. *Note that it is well-known in the art to use successive fuel output to adjust system parameters, as is shown by the examples mentioned above. Furthermore, McSpadden et al appears to directly read on Applicants' independent claims, as currently written, even when considering Applicants' specification at p.15, lines 2-12. Such is considered to be performed by the system of McSpadden et al, as described above. As such, the rejection of Claims 1-50 is maintained.*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (703)308-3423. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald P. Walsh can be reached on (703)306-4173. The fax phone number for the organization where this application or proceeding is assigned is (703)306-4195.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1113.

Jeffrey A. Shapiro
Examiner
Art Unit 3653

January 26, 2004

DONALD P. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600